



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,136	09/27/2001	Richard Joseph McConnell	ST00025USU (123-US-U1)	4922
34408 7590 04/10/2008 THE ECLIPSE GROUP 10605 BALBOA BLVD., SUITE 300 GRANADA HILLS, CA 91344				
EXAMINER BURD, KEVIN MICHAEL				
ART UNIT		PAPER NUMBER		
2611				
MAIL DATE		DELIVERY MODE		
04/10/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/967,136

Applicant(s)

MCCONNELL, RICHARD JOSEPH

Examiner

Kevin M. Burd

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. This office action, in response to the amendment filed 1/17/2008, is a final office action.

Response to Arguments

2. Applicant's arguments filed 1/17/2008 have been fully considered but they are not persuasive. The prior art discloses eliminating redundant components of the correlation process. This new, non-redundant process is used to carry out the correlation for the multiple codes. This process is stored so subsequent steps of the correlation process can be executed. The location this process is stored is the table. The previously used prior art does not disclose the correlation process accounts for signal phase inversion. A new rejection addressing this newly added limitation is stated below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al (US 6,370,208) in view of Underbrink (US 6,650,879) further in view of Shenoj (US 7,130,332).

Regarding claims 1 and 3-5, Kuo discloses a correlator for CDMA applications. An incoming spread spectrum signal is received. The correlators categorize different combinations of code sequences and identify locations for which code elements for the code sequences are equivalent. The despreading operation is performed once for each equivalent combination (abstract). The ability to derive correlator outputs for multiple codes from these terms allows redundant computations to be eliminated (column 5, lines 1-5). Claim 1 of the reference discloses the method of demodulating the signal as well. The locations where the code elements are equivalent are determined and the redundant calculations are removed. Kuo does not disclose the receiver is a GPS receiver. Underbrink discloses the personal communication device with GPS receiver shown in figure 3. The GPS receiver comprises a GPS receiver as well as a CDMA transceiver. The GPS receiver of Underbrink allows numerous types of signals to be received. The provisions share a common clock source (column 2, lines 19-30). This minimizes the physical size of the on-board battery (column 1, lines 14-28) as well as the inherent advantageous of GPS. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Underbrink into the method of Kuo. The combination of Kuo and Underbrink does not disclose the correlation process accounts for signal phase inversion. Sheno discloses the correlation implementation in figure 6. The XOR block achieves the multiplication of the input samples by the PN code by inverting the bits of the input samples if the PN code-bit is logic-1 and leaving the input samples unchanged if the PN code-bit is logic-0 (column 11, lines 15-38). This function will account for signal phase inversion. Sheno

discloses the correlation is a component of the invention and the goal of the invention is to track the received signal with greater accuracy, reduce computational load and avoid degradation in performance (column 6, lines 25-33). For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Shenoi into the combination of Kuo and Underbrink.

Regarding claim 2, Kuo discloses partial summation is used in the correlator (column 4, lines 58-63).

Regarding claims 6 and 7, Kuo discloses the redundant calculations are determined and removed from the calculations. The non-redundant calculations will be computed using the correlation process.

Regarding claim 8, Kuo discloses the use of I/Q spreading in the RAKE receiver (column 2, lines 34-43).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2611

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
4/8/2008